

## 2010-11 Experienced Institute Track Descriptions

### Math

#### **Content Track: Geometry**

Instructors will explore geometry through inductive and deductive processes, technology, manipulatives and algebraic connections. The main goal of Geometry is for instructors to logically develop the structure of Euclidian geometry and apply their knowledge to address meaningful problems and make connections to life experiences.

#### **Content Track: Number Sense**

Instructors will decompose numbers, use particular numbers as referents, solve problems using the relationships among operations and have a disposition to make sense of numbers, problems and results. We will develop computational fluency in tandem with understanding.

#### **Pedagogy Only: Geometry and Number Sense**

In Part I of this institute, participants will be presented with methodology, activities and strategies that can lead to improved number sense in students. During Part II, participants will engage in hands-on investigations of shapes and their properties. Geometry software will also be utilized. New instructional practices, technologies and curricula will be shared throughout. Participants will complete a classroom project using the new practices and curricula they've explored.

### Reading/Writing

#### **Reading and Writing Instruction: Best Practices**

This institute is designed as an introductory overview of reading/writing instructional strategies and foundational knowledge needed to deliver research-based reading and writing instruction to students at all levels of learning.

Participants will be introduced to the various approaches to teaching reading to determine the most effective approach for instruction. They will receive modeling and practice in instructional reading strategies for teaching phonemic awareness, decoding, word recognition, fluency, vocabulary and comprehension. Covering all aspects of the writing process, the institute will also provide instructors with a toolbox of instructional strategies for writing skills development. Participants will receive modeling and practice in direct and explicit instruction and developing a reading and writing lesson plan for classroom instruction. Participants will explore and evaluate various formal and informal assessment tools. The strategies learned in this course may be adapted for students of all grade levels. Participants who have completed the Effective Instructional Strategies course prior to attending will benefit.

#### **Strategies for the Struggling Reader: Diagnostics to Instruction**

This institute builds upon the knowledge and skills gained in the Reading and Writing Instruction: Best Practices workshop (formally Foundations in Reading and Writing Instruction) and provides participants with the latest research-based strategies in delivering effective reading instruction to readers at all levels of learning focusing on the struggling reader.

The purpose of this workshop is to introduce adult education instructors to various assessment tools that will assist them in identifying student's reading strengths and weaknesses beyond the information the TABE offers. Participants will be able to target instructional strategies more effectively after individual reading needs are identified. Participants will receive modeling and practice with the assessment tools and apply them with students.

Participants will receive hands-on practice in implementing strategies based on student needs as identified by the assessments. Participants will receive in-depth understanding of struggling readers as well as research-based, hands-on practical strategies in instruction in the components of reading. Participants will receive strategies to improve student word recognition, fluency with emphasis on vocabulary and comprehension development. The reading strategies may be applied to teach all content areas including math problem comprehension focusing on strategies needed to succeed on the current

GED® and beyond. Participants will also review barriers and solutions in delivering instruction with this challenging student population.

**Prerequisite:** Reading and Writing Instruction: Best Practices (Those who have participated in Reading Diagnostics or the Struggling Readers workshops prior to FY 2009-2010 may be exempt from sections of this workshop and only be required to complete the piece they missed. Contact Dawn Hanzel, 859-257-6095 or [www.kentuckyliteracy.org](http://www.kentuckyliteracy.org))

### **Differentiated Reading Instruction in a Multi-level Classroom**

This institute will build upon the Strategies for the Struggling Reader: Diagnostics to Instruction training. Participants will learn how better to understand the similarities and differences among students that affect learning and use the information to plan instruction that will meet the needs of a multi-level classroom. Based on the latest brain research, participants will learn how to identify diverse learning styles of their students (beyond visual, auditory and kinesthetic) and identify instructional strategies, tools and resources that will address students' diverse learning needs. Participants will create a profile of their class based on various assessed needs and choose, modify and apply lessons, strategies, tools and resources that may be applied to their particular classroom setting. These strategies may be applied to assist students in reading and writing in all content areas.

**Prerequisite:** Reading and Writing Instruction: Best Practices and Strategies for the Struggling Reader: Diagnostics to Instruction

## **General**

### **Learning to Think, Learning to Learn: What the Science of Thinking and Learning Has to Offer Adult Education**

Since the 1970s, the field of cognitive psychology has considered what people believe about what they are studying, how they go about solving problems and how aware they are of whether they understand what they are reading. This research has produced useful knowledge about thinking and learning and has had a big impact on our understanding of what can be most effective in the classroom. In its simplest version, a cognitive approach to learning says that teaching is most effective when it is based on certain research-based facts about how the mind works.

In her book, *Learning to Think, Learning to Learn: What the Science of Thinking and Learning Has to Offer Adult Education*, Jennifer Cromley discusses six "keys" that have been suggested to facilitate this:

1. Teach skills in multiple contexts.
2. Teach when to use the skill, not just how to do it.
3. Teach through patterns.
4. Teach for understanding, not shallow facts.
5. Students need to apply their understanding when solving problems. Ask students how they got the answer, even when they got it right!
6. Students need realistic ideas about what learning is. We can help students start to understand learning as making new information part of them by doing #1-5 above.

This institute will introduce those keys and explore their use in planning and facilitating instruction.

### **Special Needs for Special Populations**

This institute addresses learning disabilities, characteristics of LD, learning styles, instructional strategies, adaptations and case studies. It also addresses more in depth understanding of the learning process and brain functioning and explores specific learning disabilities such as dyslexia and reading disabilities, dyscalculia and math disabilities, dysgraphia and writing disabilities and ADD/ADHD. The institute will discuss the role of assistive technology in assuaging barriers to learning and demonstrate assistive technology products and devices. Participants will put into action the concepts learned through a job-embedded project scored by the facilitator and shared with other participants.

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